

SLOVENSKI STANDARD

SIST EN 597-2:2016

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Nadomešča:
SIST EN 597-2:1995

Pohištvo - Ugotavljanje vžigljivosti posteljnih vložkov in oblazinjenih podnožij - 2. del: Vir vžiga: enakovreden plamenu vžigalice

Furniture - Assessment of the ignitability of mattresses and upholstered bed base - Part 2: Ignition source: match flame equivalent

Möbel - Bewertung der Entzündbarkeit von Matratzen und gepolsterten Bettböden - Teil 2: Zündquelle: eine einem brennenden Streichholz vergleichbare Gasflamme

Ameublement - Évaluation de l'allumabilité des matelas et des sommiers rembourrés - Partie 2: Source d'allumage équivalente à l'allumette

Ta slovenski standard je istoveten z: EN 597-2:2015

ICS:

13.220.40	Sposobnost vžiga in obnašanje materialov in proizvodov pri gorenju	Ignitability and burning behaviour of materials and products
97.140	Pohištvo	Furniture

SIST EN 597-2:2016 en,fr,de

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EUROPEAN STANDARD
 NORME EUROPÉENNE
 EUROPÄISCHE NORM

EN 597-2

December 2015

ICS 13.220.40; 97.140

Supersedes EN 597-2:1994

English Version

**Furniture - Assessment of the ignitability of mattresses
 and upholstered bed bases - Part 2: Ignition source: match
 flame equivalent**

Ameublement - Évaluation de l'allumabilité des
 matelas et des sommiers rembourrés - Partie 2: Source
 d'allumage : flamme équivalente à celle d'une allumette

Möbel - Bewertung der Entzündbarkeit von Matratzen
 und gepolsterten Bettböden - Teil 2: Zündquelle: eine
 einem brennenden Streichholz vergleichbare
 Gasflamme

This European Standard was approved by CEN on 7 November 2015.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
 COMITÉ EUROPÉEN DE NORMALISATION
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European foreword

This document (EN 597-2:2015) has been prepared by Technical Committee CEN/TC 207 “Furniture”, the secretariat of which is held by UNI.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by June 2016 and conflicting national standards shall be withdrawn at the latest by June 2016.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN 597-2:1994.

The test is based on EN 1021-2, *Furniture – Assessment of the ignitability of upholstered furniture – Part 2: Ignition source: match flame equivalent*.

The main changes in relation to EN 597-2:1994 are:

- the standard has been aligned with EN 597-1;
- a tolerance has been added to the temperature of the gas flame;
- clarification of the gas supply required to produce ignition source 1.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

EN 597-2:2015 (E)

Introduction

This European Standard is one of a series of standards concerned with the ignitability of upholstered furniture using various ignition sources. The ignition source used in this European Standard is a gas flame equivalent to a match flame.

When mattresses or bed bases are used or stored on their own, it is desirable to know their ignitability in their own right.

It cannot be assumed that protection against flaming sources will automatically give protection against smouldering ignition. Users of the standard should therefore recognize the need to submit test specimens to both a gas flame equivalent to a match flame and cigarette ignition tests.

WARNING — Attention is drawn to the fact that the tests given in the test report (see Clause 10) are not intended to reproduce the full fire hazards that may be encountered.

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1 Scope

This European Standard specifies a test method to assess the ignitability of mattresses, upholstered bed bases, when subjected to a gas flame as an ignition source.

Air mattresses and water beds are excluded from this standard.

The standard contains one annex:

Annex A (informative) Model test report form.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

progressive smouldering

exothermic oxidation, not accompanied by flaming, that is self-propagating, i.e. independent of the ignition source, which may or may not be accompanied by incandescence

2.2

flaming

undergoing combustion in the gaseous phase with the emission of light

2.3

flammability

ability of a material or product to burn with a flame under the specified test conditions

2.4

ignitability

measure of the ease with which a material, product or component can be ignited so as to flame or progressively smoulder

2.5

ignition source

source of energy used to ignite combustible materials or products

2.6

mattress pad

upholstered product that is used in conjunction with, and to complement, a mattress or upholstered bed base

2.7

mattress

upholstered product intended for sleeping upon

2.8

bed base

structure of a bed that supports a mattress or the surface(s) of a mattress that support(s) a user

2.9

upper surface

surface of a bed base that supports a mattress or the surface(s) of a mattress that support(s) a user

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EN 597-2:2015 (E)**3 Criteria of ignition****3.1 Progressive smouldering ignition**

For the purposes of this European Standard, all the following types of behaviour are considered to be progressive smouldering ignitions:

- a) any test assembly that displays escalating combustion behaviour so that it is unsafe to continue the test and active extinction is necessary;
- b) any test assembly that smoulders until it is largely consumed within the test duration;
- c) any test assembly that smoulders to its full thickness, within the duration of the test;
- d) any test assembly that smoulders after one hour from the application of the ignition source;
- e) any test assembly that, on final examination (see 9.3), shows evidence of progressive smouldering.

NOTE In practice it has been found that there is usually a clear distinction between materials which can char under the influence of the ignition source but which do not propagate further (non-progressive combustion) and those where smouldering develops in extent and spreads (progressive combustion).

3.2 Flaming ignition

For the purposes of this European Standard, all the following types of behaviour are considered to be flaming ignitions:

- a) any test assembly that displays escalating combustion behaviour so that it is unsafe to continue the test and active extinction is necessary;
- b) any test assembly that burns until it is essentially consumed within the test duration;
- c) any test assembly on which any flame front reaches the lower margin, either side or passes through its full thickness within the duration of the test;
- d) any flaming which continues for more than 120 s after removal of the burner tube.

4 Principle

To subject a full upper surface or upper surface characteristic features of a mattress, the bed base or the mattress pad to the contact of a gas flame which is equivalent to a match flame by placing the gas flame so that all the zones having different characteristics are tested.

5 Health and safety of operators**5.1 General**

The test method specified in this European Standard presents a considerable hazard; suitable precautions shall be taken.

5.2 Enclosure

For safety, the test should be conducted in a non-combustible fume cupboard. If such a cupboard is not available, a test enclosure should be constructed (see 6.2) so that the operator is protected from the fumes.

5.3 Extinguishers

Adequate means of extinguishing the assembly should be provided, bearing in mind that some combinations may produce severe flaming during the test. A hand and/or fixed water spray which can be directed over the burning area can be useful. Other means such as suitable fire extinguishers, fire blankets and a bucket of water will assist.

In some cases, smouldering may be difficult to extinguish completely and complete immersion in water may be necessary.

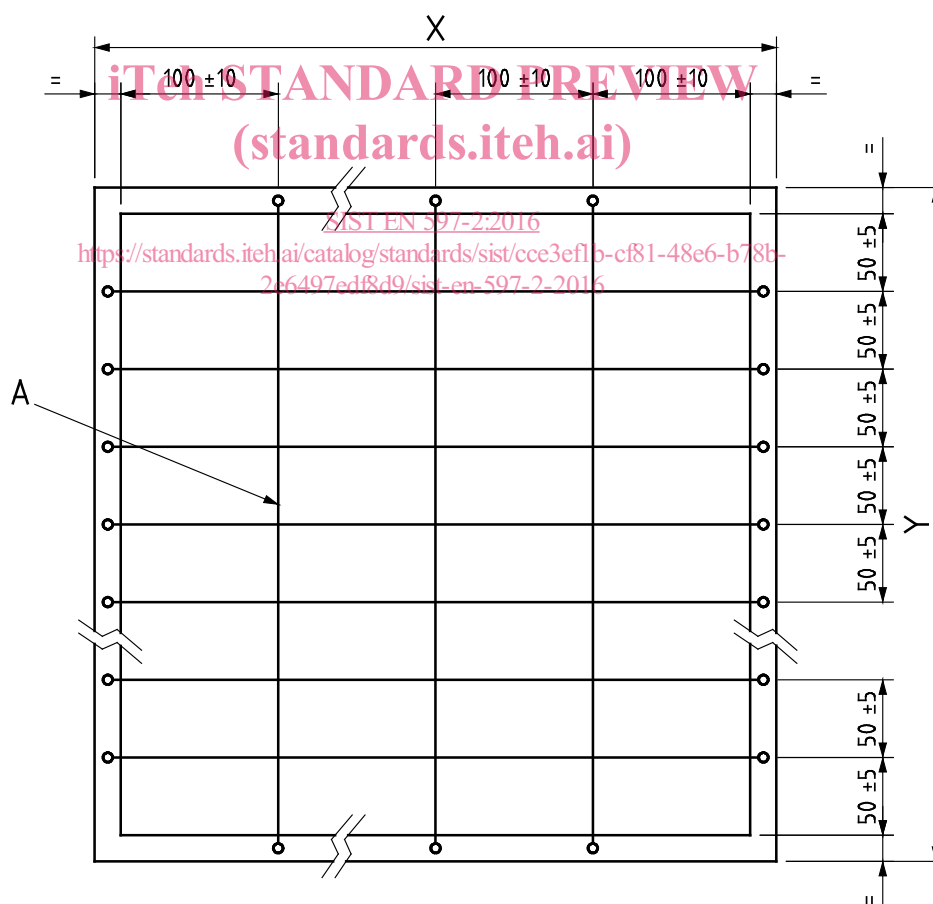
6 Apparatus

6.1 Test rig

Consisting of a platform of expanded steel or open mesh at least 450 mm x 450 mm supported at least 75 mm above a solid base (a suitable test rig mesh is illustrated in Figure 1). The size of the mesh is not critical.

For the tests the rigs shall be sited within the enclosure (see 6.2) and the testing shall be performed in a basically draught-free environment permitting an adequate supply of air and removal of smoke from the area of the apparatus.

Dimensions in millimetres



Key

- A mesh made from wire approximately 2 mm in diameter
- X test rig width at least test specimen width
- Y test rig length at least test specimen length

Figure 1 — Test rig assembly